

**AMENDMENTS TO THE CLAIMS**

Claim 1 (Currently Amended): ~~A positive active material slurry composition~~rechargeable lithium battery comprising:

~~a physical mixture of~~

a positive ~~active material~~electrode including a positive active material comprising a lithiated transition metal compound, and an additive, said additive at least one of Si, B, Ga, Ge, Ca, Mg, Sr and Ba;

~~a binder;~~

a negative electrode including a carbonaceous material as an active material~~conductive agent~~; and

an electrolyte including an organic solvent and a lithium salt dissolved in the organic solvent, wherein said positive active material composition is prepared by physically mixing said positive active material, ~~said a binder~~ in said organic solvent in a form of slurry, wherein the additive is 0.01 to 10 wt% of the positive active material,

wherein the lithiated transition metal compound is selected from the group consisting of compounds represented by formulas 1 to 13:

- |   |      |
|---|------|
| $\text{Li}_x\text{MnA}_2$                                       | (1)  |
| $\text{Li}_x\text{MnO}_{2-z}\text{A}_z$                         | (2)  |
| $\text{Li}_x\text{Mn}_{1-y}\text{M}'_y\text{A}_2$               | (3)  |
| $\text{Li}_x\text{Mn}_2\text{A}_4$                              | (4)  |
| $\text{Li}_x\text{Mn}_2\text{O}_{4-z}\text{A}_z$                | (5)  |
| $\text{Li}_x\text{Mn}_{2-y}\text{M}'_y\text{A}_4$               | (6)  |
| $\text{Li}_x\text{BA}_2$  | (7)  |
| $\text{Li}_x\text{BO}_{2-z}\text{A}_z$                          | (8)  |
| $\text{Li}_x\text{B}_{1-y}\text{M}''_y\text{A}_2$               | (9)  |
| $\text{Li}_x\text{B}_{1-y}\text{M}''_y\text{O}_{2-z}\text{A}_z$ | (10) |
| $\text{Li}_x\text{NiCoA}_2$                                     | (11) |
| $\text{Li}_x\text{NiCoO}_{2-z}\text{A}_2$                       | (12) |
| $\text{Li}_x\text{Ni}_{1-y-z}\text{Co}_y\text{M}''_z\text{A}_2$ | (13) |

wherein  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ ,  $M'$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Co, Mg, La, Ce, Sr and V,  $M''$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, A is selected from O, F, S or P, and B is Ni or Co.

Claims 2 - 4 (Canceled):

Claim 5 (Currently Amended): A method of ~~preparing making a positive electrode~~ for a rechargeable lithium battery comprising:

forming a positive electrode by physically mixing a positive active material with an additive, the positive active material being selected from the group consisting of lithiated transition metals, and the additive at least one of Si, B, Ga, Ge, Ca, Mg, Sr and Ba;

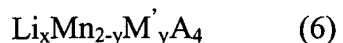
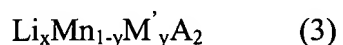
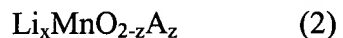
forming a negative electrode including a carbonaceous material as an active material~~adding an organic solvent, a binder, and a carbon conductive agent to the mixture to prepare a positive active material slurry composition;~~

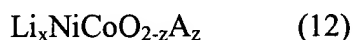
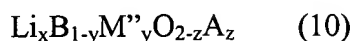
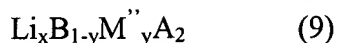
preparing an electrolyte including an organic solvent including a lithium salt dissolved in the organic solvent;

coating the positive active material composition on a current collector; and

drying the current collector coated with ~~the~~ a positive active material slurry composition,

wherein the amount of the additive is 0.01 to 10 wt% of the positive active material, and the lithiated transition metal compound is selected from the group consisting of the formulas 1 to 13:





where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ ,  $\text{M}'$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Co, Mg, La, Ce, Sr and V,  $\text{M}''$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, A is selected from O, F, S or P, and B is Ni or Co.

Claims 6 - 7 (Canceled)

Claim 8 (Currently Amended): The ~~positive active material composition~~ rechargeable lithium battery of claim 1, wherein said organic solvent is N-methylpyrrolidone.

Claim 9 (Previously Presented): The method of claim 5, wherein said organic solvent is N-methylpyrrolidone.

Claim 10 (Withdrawn): The positive active material composition of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



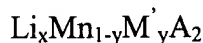
where  $1.0 \leq x \leq 1.1$ , and A is selected from O, F, S or P.

Claim 11 (Withdrawn): The positive active material composition of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , and A is selected from O, F, S or P.

Claim 12 (Withdrawn): The positive active material composition of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $\text{M}'$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Co, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P.

Claim 13 (Withdrawn): The positive active material composition of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



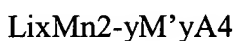
where  $1.0 \leq x \leq 1.1$ , and A is selected from O, F, S or P.

Claim 14 (Withdrawn): The positive active material composition of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , and A is selected from O, F, S or P.

Claim 15 (Withdrawn): The positive active material composition of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $\text{M}'$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Co, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P.

Claim 16 (Currently Amended): The rechargeable lithium battery~~positive active material composition~~ of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



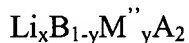
where  $1.0 \leq x \leq 1.1$ , A is selected from O, F, S or P, and B is Ni or Co.

Claim 17 (Currently Amended): The ~~positive active material composition~~ rechargeable lithium battery of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



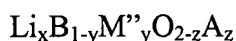
where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , A is selected from O, F, S or P, and B is Ni or Co.

Claim 18 (Currently Amended): The ~~rechargeable lithium battery positive active material composition~~ of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ , M'' is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P, and B is Ni or Co.

Claim 19 (Currently Amended): The ~~rechargeable lithium battery positive active material composition~~ of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ , M'' is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, A is selected from O, F, S or P, and B is Ni or Co.

Claim 20 (Currently Amended): The ~~rechargeable lithium battery positive active material composition~~ of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



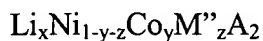
where  $1.0 \leq x \leq 1.1$ , and A is selected from O, F, S or P.

Claim 21 (Currently Amended): The rechargeable lithium battery~~positive active material composition~~ of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , and A is selected from O, F, S or P.

Claim 22 (Currently Amended): The rechargeable lithium battery~~positive active material composition~~ of claim 1 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ , M'' is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P.

Claim 23 (Withdrawn): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



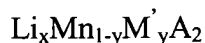
where  $1.0 \leq x \leq 1.1$ , and A is selected from O, F, S or P.

Claim 24 (Withdrawn): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , and A is selected from O, F, S or P.

Claim 25 (Withdrawn): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



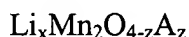
where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ ,  $\text{M}'$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Co, Mg, La, Ce, Sr and V,  $\text{M}''$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P, and B is Ni or Co.

Claim 26 (Withdrawn): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



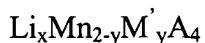
where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ ,  $\text{M}'$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Co, Mg, La, Ce, Sr and V,  $\text{M}''$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P, and B is Ni or Co.

Claim 27 (Withdrawn): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , and A is selected from O, F, S or P.

Claim 28 (Withdrawn): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



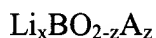
where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $\text{M}'$  is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P.

Claim 29 (Previously Presented): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ , A is selected from O, F, S or P, and B is Ni or Co.

Claim 30 (Previously Presented): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



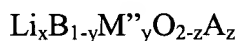
where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , A is selected from O, F, S or P, and B is Ni or Co.

Claim 31 (Previously Presented): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ , M'' is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, A is selected from O, F, S or P, and B is Ni or Co.

Claim 32 (Previously Presented): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ , M'' is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, A is selected from O, F, S or P, and B is Ni or Co.

Claim 33 (Previously Presented): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ , and A is selected from O, F, S or P.

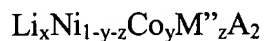
Claim 34 (Previously Presented): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:





where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq z \leq 0.5$ , and A is selected from O, F, S or P.

Claim 35 (Previously Presented): The method of claim 5 wherein the lithiated transition metal compound is a compound represented by formula:



where  $1.0 \leq x \leq 1.1$ ,  $0.01 \leq y \leq 0.1$ ,  $0.01 \leq z \leq 0.5$ , M'' is at least one transition metal or lanthanide metal selected from the group consisting of Al, Cr, Mn, Fe, Mg, La, Ce, Sr and V, and A is selected from O, F, S or P.

Claims 36-37 (Canceled)